# THE HEALING ARTS

# RADIATION PROTECTION

# (HARP) COMMISSION

## ONTARIO MINISTRY OF HEALTH

## ELEVENTH ANNUAL REPORT

## TO THE MINISTER OF HEALTH

## 1991 - 1992

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## I. THE COMMISSION'S VISION STATEMENT

**To facilitate changes in the radiological and radiation therapy health care systems that optimize the patient's risk / benefit ratio.**

## II. INTRODUCTION

This is the eleventh annual report of the Healing Arts Radiation Protection (HARP) Commission to the Minister of Health, as required by Section 16(2) of the HARP Act, 1980. This report covers the Commission's activities during the period of April 1991 to March 1992.

## III. THE COMMISSION'S OPERATIONAL POLICY

During the period covered by this report the Commission developed an operational policy which was based upon current practice. The policy clearly and formally articulates how the Commission operates as an organization. All advisory committee members and organizations with representation on an advisory committee were given the opportunity to provide input on the draft policy. The operational policy was devised in order to increase the Commission's efficiency, effectiveness and accountability. In addition, it will also prove helpful in orienting new members to the Commission and its advisory committees.

The Operational Policy provides the Commission's advisory committee members and nominating organizations with guidance on:

The HARP Commission's issue resolution and decision making process;
Communications policy;
Relations with advisory committees and nominating organizations;
Agenda setting;
The planning process;
Evaluation; and
The establishment of work groups and task forces.

## IV. MEMBERSHIP AND MANDATE OF THE COMMISSION

The Commission, its composition, responsibilities and powers were established under the authority of Section 15 of the HARP Act. The Commission's work represents an active and vigorous effort to serve the public interest in the area of radiation protection and safety.

Members are appointed to the Commission by Lieutenant Governor's Order in Council for a term of up to, but not exceeding, six consecutive years. In order to ensure that the Commission functions independently of the providers of x-ray services and of the government, membership is restricted to lay persons who are not in the public service of the Province and who are not and never have been, members of any governing body or registered health discipline.

COMMISSION MEMBERS:

| | |
|---|---|
| Gerard Charette (Chair) | Windsor |
| Sandra Mark (Vice-Chair) | Ottawa |
| Shirley Gauthier | Dryden |
| Albert Mastromartino | Ajax |
| Keeman Wong | Toronto |

COMMISSION MANDATE:

The Commission was established to:

- advise the Minister on all matters relating to the health and safety of patients in respect of irradiation by x-rays;
- oversee the continuing development of an X-ray Safety Code;
- review the contents of courses in the operation of x-ray machines and x-ray equipment and approve the courses it considers satisfactory;
- examine, study and report to the Minister on such matters, including health screening programs involving the use of x-rays, as the Minister may refer to the Commission for this purpose; and
- perform such other duties as are assigned to it by or under the HARP Act or any other Act.

## V. MEMBERSHIP AND MANDATE OF THE ADVISORY COMMITTEES

The Commission is supported by six advisory committees. The advisory committees were established under Section 17 of the HARP Act and represent each of the following disciplines:

1. Chiropody (Podiatry)
2. Chiropractic
3. Dentistry
4. Medical Radiology
5. Physics
6. Radiological Technology

A seventh advisory committee which will deal with radiation therapy issues was approved by the Minister during this fiscal year. The Commission is currently in the process of establishing this committee.

The committees assist and advise the Commission on:

educational standards in x-ray safety;

certification of all operators;

quality assurance programs required for each class of facility;

maintenance of appropriate standards for facilities, equipment and operators;

professional and technological matters related to radiation safety;

updates and additions to HARP Regulations and Guidelines; and

other matters referred to them by the Commission.

### ADVISORY COMMITTEE MEMBERS

With the exception of the Physics Advisory Committee, whose members are nominated by the Canadian College of Physicists in Medicine, membership on each advisory committee consists of at least one representative from both the governing body and the professional association concerned. In addition, a member of the Physics Advisory Committee also serves on each of the other advisory committees.

The following is a list of members who served on, or were appointed to an advisory committee during the period covered by this report:

Chiropractic Advisory Committee

| | |
|---|---|
| Dr. Donald Henderson (Chair) ** - Ontario Chiropractic Association | Islington |
| Dr. Leonard Hardman (Chair) - Board of Directors of Chiropractic | Unionville |
| Dr. Jan Kempe * - Ontario Chiropractic Association | Windsor |
| Dr. Brian Wilson (Physicist) ** - Canadian College of Physicists in Medicine | Hamilton |

Dentistry Advisory Committee

| | |
|---|---|
| Dr. Paula Sikorski (Chair) - Ontario Dental Association | Toronto |
| Dr. Martin Bouregois * - Ontario Society of Oral Radiologists | Toronto |
| Dr. Curtis Caldwell (Physicist) - Canadian College of Physicists in Medicine | Toronto |
| Dr. Roger Ellis ** - Royal College of Dental Surgeons of Ontario | Toronto |
| Ms. Mary Lou Fischer ** - Ontario Dental Nurses and Assistants Association | London |
| Dr. Jim Gillespie * - Royal College of Dental Surgeons of Ontario | Toronto |
| Ms. Rena Roxborough * - Ontario Dental Nurses and Assistants Association | Mississauga |

* Denotes member appointed during period covered by report.

** Denotes member retired during period covered by report.

| | |
|---|---|
| Ms. Shirley Silverman<br>- Ontario Dental Hygienists Association | Thornhill |

Medical Radiology Advisory Committee

| | |
|---|---|
| Dr. Alastair Scarth (Chair)<br>- Ontario Medical Association - Radiology Section | Barrie |
| Dr. Ian Cunningham (Physicist)<br>- Canadian College of Physicists in Medicine | London |
| Dr. Gerald Gill<br>- College of Physicians and Surgeons of Ontario | Hamilton |
| Dr. Ted Lansdown<br>- Canadian Association of Radiologists | Toronto |
| Dr. Cyril Rotenberg<br>- Independent | Toronto |

Physics Advisory Committee

| | |
|---|---|
| Dr. Michael Bronskill (Chair) | Toronto |
| Dr. Curtis Caldwell | Toronto |
| Dr. Ian Cunningham | London |
| Dr. Ting-Yim Lee | London |
| Dr. Brian Wilson ** | Hamilton |

- All members of the Physics Advisory Committee represent the Canadian College of Physicists in Medicine.

Chiropody (Podiatry) Advisory Committee

| | |
|---|---|
| Robert Goldberg, DPM (Chair)<br>- Board of Regents of Chiropody | Willowdale |
| Dr. Ting-Yim Lee (Physicist)<br>- Canadian College of Physicists in Medicine | London |

* Denotes member appointed during period covered by report.

** Denotes member retired during period covered by report.

| | |
|---|---|
| Paul Lezner, DPM **<br>- Ontario Podiatric Medical Association | Willowdale |
| Tony Zamojc, DPM *<br>- Ontario Podiatric Medical Association | Guelph |

Radiological Technology Advisory Committee

| | |
|---|---|
| Ms. Anne Robertson (Chair)<br>- Ontario Association of Radiology Managers | Owen Sound |
| Dr. Douglas Alton **<br>- Board of Radiological Technicians | Toronto |
| Dr. Michael Bronskill (Physicist)<br>- Canadian College of Physicists in Medicine | Toronto |
| Mr. Ernest Edmonds<br>- Board of Radiological Technicians | Hamilton |
| Mr. Thomas Holland<br>- Ontario Association of Medical Radiation Technologists | Ottawa |
| Mr. Alex McKinnon<br>- Ontario Hospital Association | Kingston |
| Dr. Alastair Scarth *<br>- Board of Radiological Technicians | Barrie |

* Denotes member appointed during period covered by report.

** Denotes member retired during period covered by report.

# VI. SUMMARY OF ACTIVITIES 1991 - 1992

## STRATEGIC PLAN

During the past year, the Commission, with assistance from its advisory committees, started its review of its original strategic plan which was in effect for most of 1990 and all of 1991. The review disclosed that many of the goals and objectives set out in the plan had been achieved. It became clear that rather than simply updating the original, a new strategic plan was required.

With this in mind the Commission organized a special meeting in August of 1991. Representatives from each of the Commission's advisory committees and work groups were asked to participate.

The purpose of the meeting was to evaluate the Commission's role in radiation safety; determine how this role had changed; and consider the Commission's role in the future. At the meeting, it was stressed that the Commission's key role is to advise the Minister of Health on all matters relating to x-ray safety and to lead the continuing development of the X-ray Safety Code. Meeting participants agreed that while the Commission's key role has not and cannot change, the additional roles of the Commission have evolved over the years. Participants agreed that the Commission has come to be viewed as more than a body which recommends regulations.

In addition to its role as a regulator, the Commission plays a large part in facilitating improvements in radiation safety. As a facilitator, the Commission can organize work groups or a task force to resolve a specific issue; meet with the relevant professional associations and governing bodies to discuss and resolve issues of mutual concern; through it advisory committees, provide information and guidance for the radiological community; and identify areas where improvements may be made.

At the meeting it became clear that the Commission needed to recognize and articulate its evolving role as a facilitator in addition to its role as regulator. It was agreed that facilitation was the key tool or method by which the Commission performs all of its duties. Thus, the following vision statement was developed and will now guide the Commission in its activities, decisions, and recommendations.

> *"The role of the HARP Commission is to facilitate changes in the radiological and radiation therapy health care systems that optimize the risk / benefit ratio to the patient."*

With the vision statement providing direction and a basis, the Commission drafted a new strategic plan. Each of the objectives and tasks outlined in the plan support the optimization of the risk / benefit ratio to the patient.

The Commission circulated the draft to all advisory committee members and the 17 professional associations and governing bodies with representation on a HARP advisory committee for comment and advice. The final version of the Commission's strategic plan is currently being completed.

A detailed action plan with time frames and evaluative criteria has also been drafted as part of the plan and will assist the Commission in achieving each of the goals and objectives outlined in its strategic plan.

## RADIATION THERAPY

During the past year, the Commission received approval from the Minister of Health to establish a Radiation Therapy Advisory Committee (RTHAC). The recommendation to form the RTHAC came from the Commission's Radiation Therapy Work Group (RTWG) which was established in April, 1990, and provided the Commission with it final report and recommendations in January, 1991.

The Work Group recommended that the advisory committee:

1. develop standards for patient safety for radiation therapy in Ontario;

2. encourage, by voluntary means, the implementation and monitoring of these standards; and

3. establish a review process to measure and evaluate the effectiveness of the voluntary process (Radiation Therapists, Radiation Oncologists and Medical Physicists).

The key health care professionals involved with radiation safety and quality assurance within radiation therapy facilities are represented on the committee. The RTHAC began meeting in June, 1992.

## PROTECTIVE RADIATION SHIELDING DEVICES

An interdisciplinary workshop was held to provide the Commission with recommendations on the use of protective shielding devices.

Workshop participants recommended that the Commission include a section in the HARP Guidelines devoted to the use of protective devices. They also provided the Commission with some recommendations on what this guideline should state.

The Commission agreed that guidelines are necessary and that they would provide x-ray operators with clear information and advice on the appropriate use of protective shielding devices.

Currently, a draft guideline document is being circulated among HARP advisory committees, professional associations and governing bodies. Once feedback has been received, a final document will be developed and included in the HARP Guidelines.

## RADIATION SAFETY AND MAMMOGRAPHY

During the period covered by this report, the Commission's advisory committees completed a review of mammography training courses for radiological technologists.

The review process showed that technologists in this province receive a good foundation in radiation safety and mammography. The Commission's advisory committees' found several areas in the curriculum outlines where there was an opportunity for improvement. The Commission communicated where these improvements could be made to the Ministry of Colleges and Universities (MCU). The Commission will meet with MCU representatives in June, 1992 to discuss this issue and to work with them to achieve these improvements.

The Commission also conducted a review of the Ontario Breast Screening Program's technical quality assurance and quality control procedure manuals covering x-ray equipment. The review found the Program's procedures and protocols to be satisfactory. HARP Commission advisory committees were able to offer some suggestions for improvement and clarification and these suggestions have been included in their procedures manual. The Commission has been advised that quality assurance procedures are also being developed for other aspects of the program such as staff training, record keeping, etc.

## IMAGE QUALITY

As a result of the interest and concern expressed to the Commission regarding the improvement of image quality, the Commission established a Phantom Development Work Group, which began meeting in April, 1991. Since that time, the work group has been meeting approximately once every six to eight weeks and has already fulfilled several of the requirements listed in its terms of reference. To date the work group has:

A. Identified the various diagnostic radiographic and fluoroscopic procedures that would benefit (in terms of image quality improvements) from the use of a test phantom;

B. Ranked these procedures in order of priority; and

C. Reviewed and assessed phantoms that are already available or are under development and identified the procedures for which these phantoms may be useful in assessing image quality.

The work group is currently conducting tests on various phantoms.

## COMMISSION'S LIAISON WORK

Over the past year, the Commission has continued to meet with health care professionals and organizations involved in radiation safety. Contact with these individuals and organizations has helped to keep the Commission informed about various issues which may affect radiation safety. In future, the Commission plans to increase its liaison work so as to keep current with the issues that concern radiation safety and help to facilitate the resolutions of these issues whenever possible. During the period covered by this report, the Commission met with:

Ms. Jenny Wong, Ministry of Health, Quality Management Corporate Coordinator
Representatives of the Ontario Association of Medical Radiation Technologists
Representatives of the Board of Radiological Technicians of Ontario
Representatives of the Ontario Hospital Association
Representatives of the Canadian College of Physicists in Medicine
Representatives of Quality Assurance Companies
Representatives of the College of Physicians and Surgeons of Ontario

## VII. ACKNOWLEDGEMENTS

The Commission wishes to thank each member of the advisory committees and acknowledges their efforts in assisting with the work of the Commission. The knowledge and advice they provide to the Commission contributes to patient safety and radiation protection in Ontario.

In addition, the Commission would like to thank the following Ministry of Health staff for their assistance:

Mr. Joseph Ritchie
Chief, X-ray Inspection Service

Ms. Susan Elworthy
Project Co-ordinator, X-ray Inspection Service

Mrs. Margo Kipis
Administrative Secretary, X-ray Inspection Service

The Commission would also like to thank and acknowledge Dr. Walter Lumsden, Medical Advisor to the Commission.